UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,730	07/16/2003	Miska M. Hannuksela	00002-5090	9027

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EXAMINER
SENFI, BEHROOZ M

ART UNIT	PAPER NUMBER
2482	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/620,730	HANNUKSELA, MISKA M.
		Examiner	Art Unit
		BEHROOZ SENFI	2482

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>03 January 2011</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>9-20 and 22-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>9-20 and 22-33</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>30 July 2007</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

01/03/2011 has been entered.

Response to Amendment

2.   Applicant's arguments filed 01/03/2011 with respect to claims 9-19,23-24 and 26-

33 have been considered but are moot in view of the new ground(s) of rejection.

3.   Applicant's arguments with respect to claims 20,22 and 25 have been fully

considered but they are not persuasive; please refer to response to remarks. Therefore

these claims are rejected for the same reason as set forth in the last Office Action, the

rejection is being restated.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 9-19, 23-24 and 26-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Sullivan (US 2003/0156640) in view of Veltman et al. (US 5,386,234).

Regarding claim 15, Sullivan discloses, a method of encoding a video sequence

(i.e., figs. 1-3) comprising; encoding into an encoded bit-stream by a video encoder, a

first indication corresponding to an intra coded picture (encoded bit-stream with first

indication, e.g., I picture, indicating intra coded picture as shown in figs. 1-3, page 1,

paragraphs 0010-0011 and 0016, page 2, paragraph 0021), the first indication indicating

whether or not at least a part of at least a first picture is encoded with reference to a

picture preceding the intra coded picture in encoding order (i.e., the arrows as shown in

fig. 1, indicates picture encoding with reference to another picture e.g., picture

preceding the intra coded picture, in encoding order, as shown in fig. 1, B8, consider as

first picture, is encoded with reference to a picture preceding the intra coded picture P6

in encoding order), the first picture having a display order prior to the intra coded picture

(note that; in fig. 1 of Sullivan, B8, consider as first picture, has a display order prior to

the intra coded picture I9) and an encoding order succeeding the intra coded picture

(the encoding order of B8 succeed the intra coded picture I), and performing motion

compensated prediction by the video encoder (i.e., fig. 1, paragraph 0004) for a second

picture with reference to the first picture (i.e.,

Although Sullivan teaches motion compensated prediction by the video encoder;

but is silent to explicit show performing motion compensated prediction, for a second

picture with reference to the first picture, such as "B" picture with reference to another

"B" picture, as described in the remarks, filed 1/03/2011.

However, Veltman teaches using/performing motion compensated prediction for

a second picture with reference to the first picture, such as "B" picture with reference to

another "B" picture, (i.e., figs. 1A-1C, pictures B0, B1 and B2) being predicted from another B frame, thus would improve inter-frame motion prediction and enhance the precision in the prediction of the motion in any bidirectional predictive coded frame.

In view of the above, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the teaching of Veltman into the encoding method and system of Sullivan, in order to improve inter-frame motion prediction and enhance the precision in the prediction of the motion in any bidirectional predictive coded frame, as suggested by Veltman (i.e., col. 1, lines 54-58).

Regarding claims 9-10, the limitations claimed are substantially similar to claim 15 above; therefore the ground for rejecting claim 15 also applies here.

Regarding claim 11, the combination of Sullivan and Veltman teaches, indication is provided in network abstraction layer unit-type syntax (Sullivan; page 3, paragraph 0038).

Regarding claims 12-13, the combination is silent to explicitly mention, wherein the indication is retrieved from a picture header, and also slice header in claim 13.

However examiner takes Official Notice to indicate that it is within the knowledge of one of ordinary skill in the art to realize that the header and/or slice header must contain the necessary information for proper decoding, in order for the decoder to retrieve the information from the header and process the data in a proper manner, Please see (Tranchard; 5,680,483, col. 8, lines 35-52).

Regarding claim 14, the combination of Sullivan and Veltman teaches, random access point using a sub-sequence identifier (Sullivan; figs. 5 and 8).

Regarding claim 16, the combination of Sullivan and Veltman teaches, a method according to claim 15, wherein the first indication is provided in NAL "network abstraction layer" unit-type syntax (Sullivan; page 3, paragraph 0038).

Regarding claims 17-18, Please refer to claims 12-13 above.

Regarding claim 19, the combination of Sullivan and Veltman teaches, random access point (Sullivan; fig. 5, indication of random access).

Regarding claims 23-24, Please refer to claims 12-13 above

Regarding claims 26 and 32, the limitations claimed are substantially similar to claim 15 and are the decoding process of the encoded bit-stream, the combination teaching of Sullivan and Veltman shows the decoding process (please see Sullivan; page 2, paragraphs 0021, 0025 and page 3, paragraphs 0041-0042), therefore the ground for rejecting claim 15 also applies here.

Regarding claims 27-28 and 33, the combination of Sullivan and Veltman teaches, discarding and continuing the decoding process (Sullivan; fig. 7, best efforts decoding and assured decoding, page 6, paragraphs 0077-0080, thus obviously discard those picture that can not decode properly), and NAL unit type syntax (Sullivan, page 3, paragraph 0038).

Regarding claim 31, the combination of Sullivan and Veltman teaches, random access location is determined by examining sub-sequence identifiers for encoded pictures (Sullivan; figs. 5 and 8).

Regarding claims 29-30, the limitations claimed have been addressed in the above claims 12-13.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> a.   A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

7.   Claims 20, 22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated

by Sullivan (US 2003/0156640).

Regarding claim 20, Sullivan discloses, a method of decoding an encoded bit-

stream comprising, retrieving by a video decoder from the encoded bit-stream a first

indication corresponding to an intra-coded picture (i.e., figs. 1-3 and 7, page 1,

paragraph 0011, page 2, paragraph 0021 and page 6, paragraphs 0083-0084), the first

indication indicating that all decoded coded pictures at and subsequent to the intra-

coded picture can be correctly decoded when a decoding process is started from the

intra-coded picture (i.e., fig. 7, page 2, paragraph 0021, page 6, paragraphs 0078-0080)

and based on the decoded first indication decoding the encoded bit-stream, the

decoding starting from the intra coded picture and subsequent pictures in display order

(i.e., page 2, paragraphs 0021, 0025 and page 3, paragraphs 0041-0042), decoding

from the encoded bit-stream a second indication corresponding to a first coded picture

… (i.e., paragraphs 0021 and 0073-0083), discarding the first coded picture without

decoding and continuing the decoding process with the encoded pictures succeeding the first coded picture (i.e., paragraphs 0021 and 0073-0083).

Regarding claim 22, the combination of applicant admitted prior art and Sullivan teaches, a method according to claim 20, wherein the indication is retrieved from "NAL network abstraction layer unit-type syntax" (Sullivan, page 3, paragraph 0038).

Regarding claim 25, the limitations claimed are substantially similar to claim 20 above; therefore the ground for rejecting claim 20 also applies here.

Response to Remarks:

Applicant (remarks; pages 10-11) indicates that Sullivan fails to provide any teaching or suggestion of a decoded indication which indicates whether or not the first coded picture can be correctly decoded when decoding started from the intra coded picture, and fails to teach second indication for discarding the first coded picture without decoding.

With respect to applicant's argument; examiner indicates that, Sullivan (i.e., page 6, paragraph 0072) indicates that entry point, e.g., indicator, that indicates to the decoder whether to attempt to decode the picture or not, and further in (paragraph 0077 and 0080) if the decoder sees the capability to correctly decode the picture, it will start decoding that picture. As best understood by the examiner, the decoder would perform the decoding process based on the knowledge of whether that specific picture; e.g., first picture after I picture, is decodable or not, and if the answer is "not", the decoder would discard that specific picture and moves on to the other picture, it is noted that this information or knowledge is provided by the encoder, as indicator to decoder, to help

the decoder to correctly perform the decoding process. Thus examiner believes the

teaching of Sullivan encompasses the claimed language.

Contact

8.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Behrooz Senfi whose telephone number is 571-272-

7339. The examiner can normally be reached on M-F 7:00-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha Banks Harold can be reached on 571-272-7905. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Behrooz Senfi/
Primary Examiner
Art Unit 2482